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CBRN Survivability Conference

Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD)

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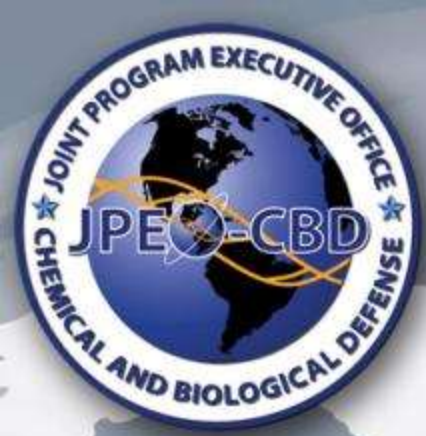
May 17, 2011





Agenda

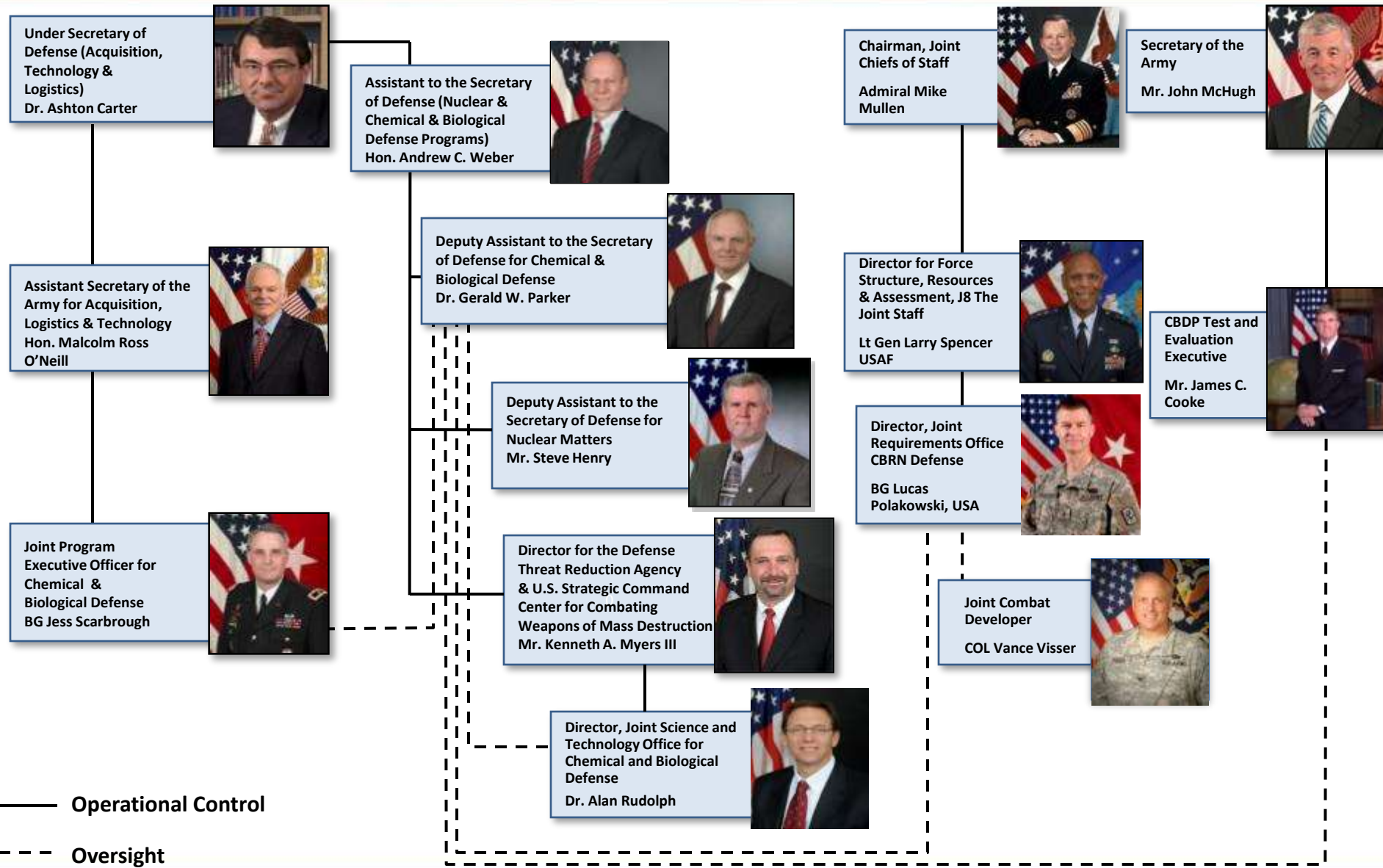
- **JPEO-CBD: The Organization**
- **Trail Boss Functions Overview**
- **MDAP: Formation & Support**
- **Closing: Future Missions**



JPEO-CBD: The Organization



CBD Program Leadership





DoD CBDP Background

- **Established by Congress – 1994 National Defense Authorization Act, Public Law 103-160**
- **Consolidates all DoD Chemical and Biological (CB) Defense Efforts into Defense-Wide Funding Accounts Overseen by a Single Office Within the Office of the Secretary of Defense**
- **Established the Department of the Army as the Executive Agent**
- **JPEO-CBD Portfolio consists of 50% non-medical equipment (CBRN Individual Protection, Detection, Force Protection, Decon, etc.) and 50% Medical Countermeasures (Vaccines, Medical Treatment)**
- **Program Re-organized in April 22, 2003**

ASD(NCB) Provides Oversight of the Program





The Joint Program Executive Office for Chemical and Biological Defense

DoD
Army
Navy
Air Force
Marines



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The JPEO CBD Enterprise: Delivering Integrated Broad Spectrum Capability



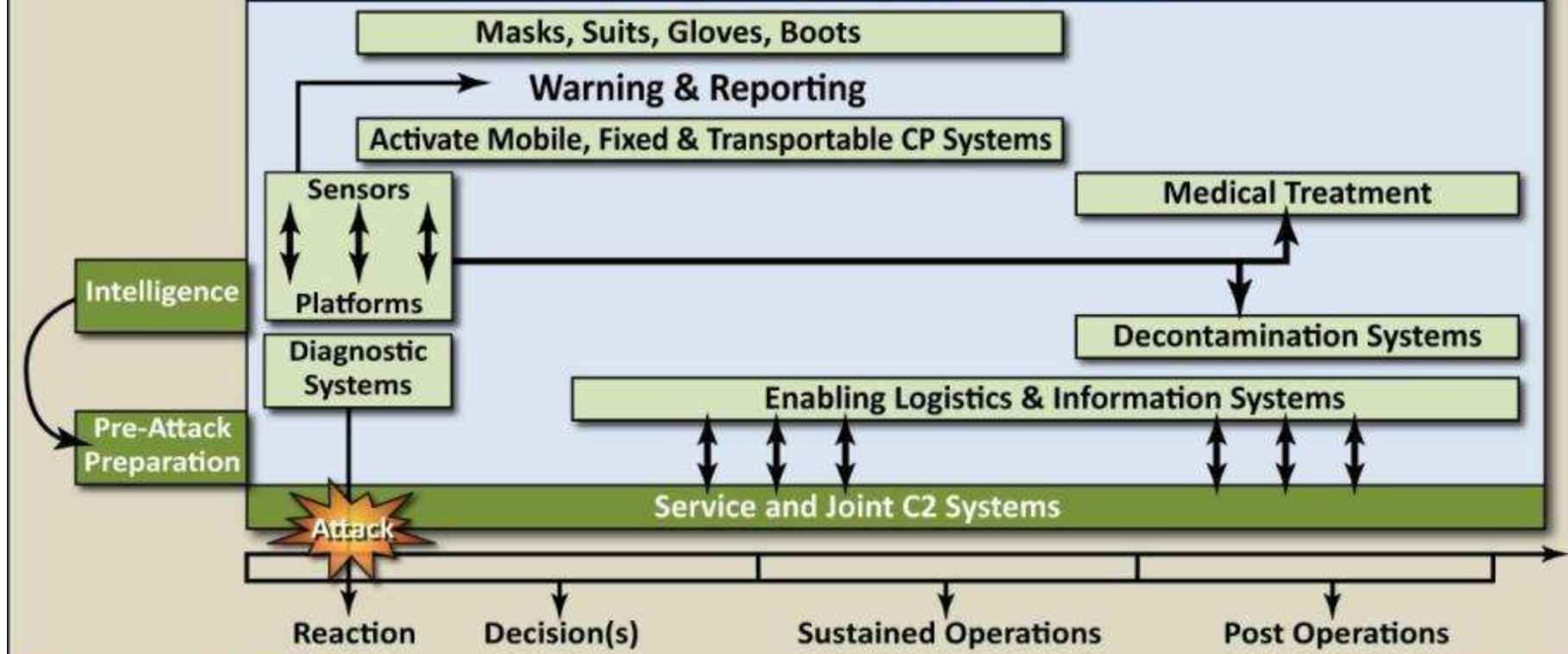


CBRN Portfolio of Systems

- ♦ Net-Centric
- ♦ Flexible
- ♦ Integrated
- ♦ Carefully Linked with External Systems and Communities
- ♦ Adaptable
- ♦ Plug 'n Play
- ♦ Testable
- ♦ Synchronized

INTEGRATED and ROBUST CBRND CAPABILITY

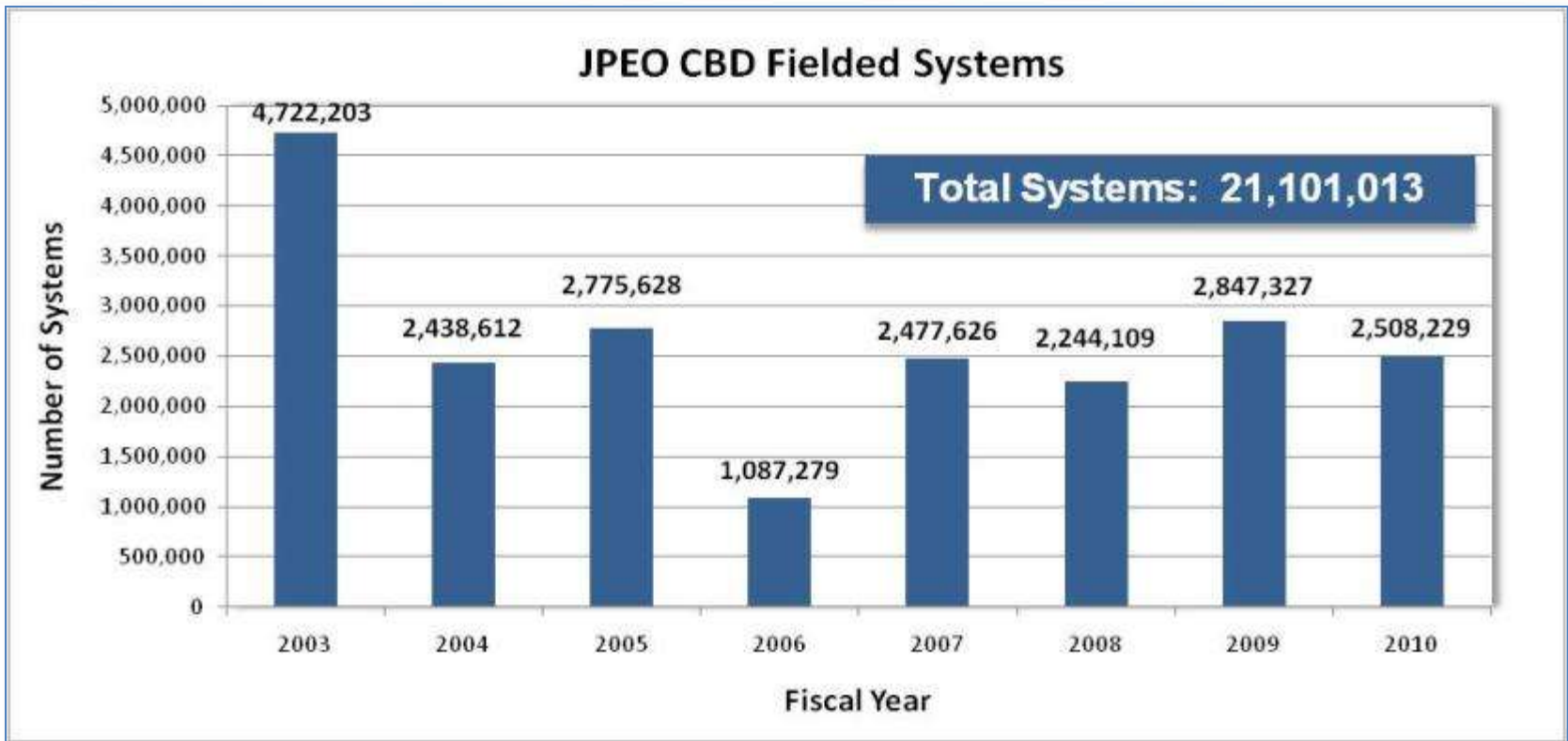
Warfighter Modeling & Simulation



Protecting Warfighters from CBRN Environments → Enabling Missions with Minimal Disruptions

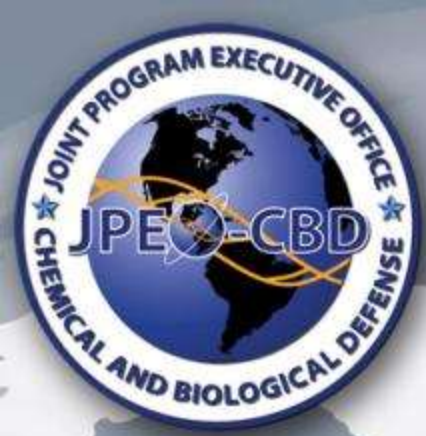


Addressing CBRN Threats with Successfully Fielded Systems



- Biological Detectors
- Chemical Detectors
- Bio-Medical Systems (JBAIDS)
- Vaccines (Anthrax & Smallpox)
- Collective Protection
- Individual Protection Equipment
- Installation Protection Program
- Consequence Management Systems
- Decontamination (Equipment & Individual)
- Information Systems

** As of Jan 21, 2011*

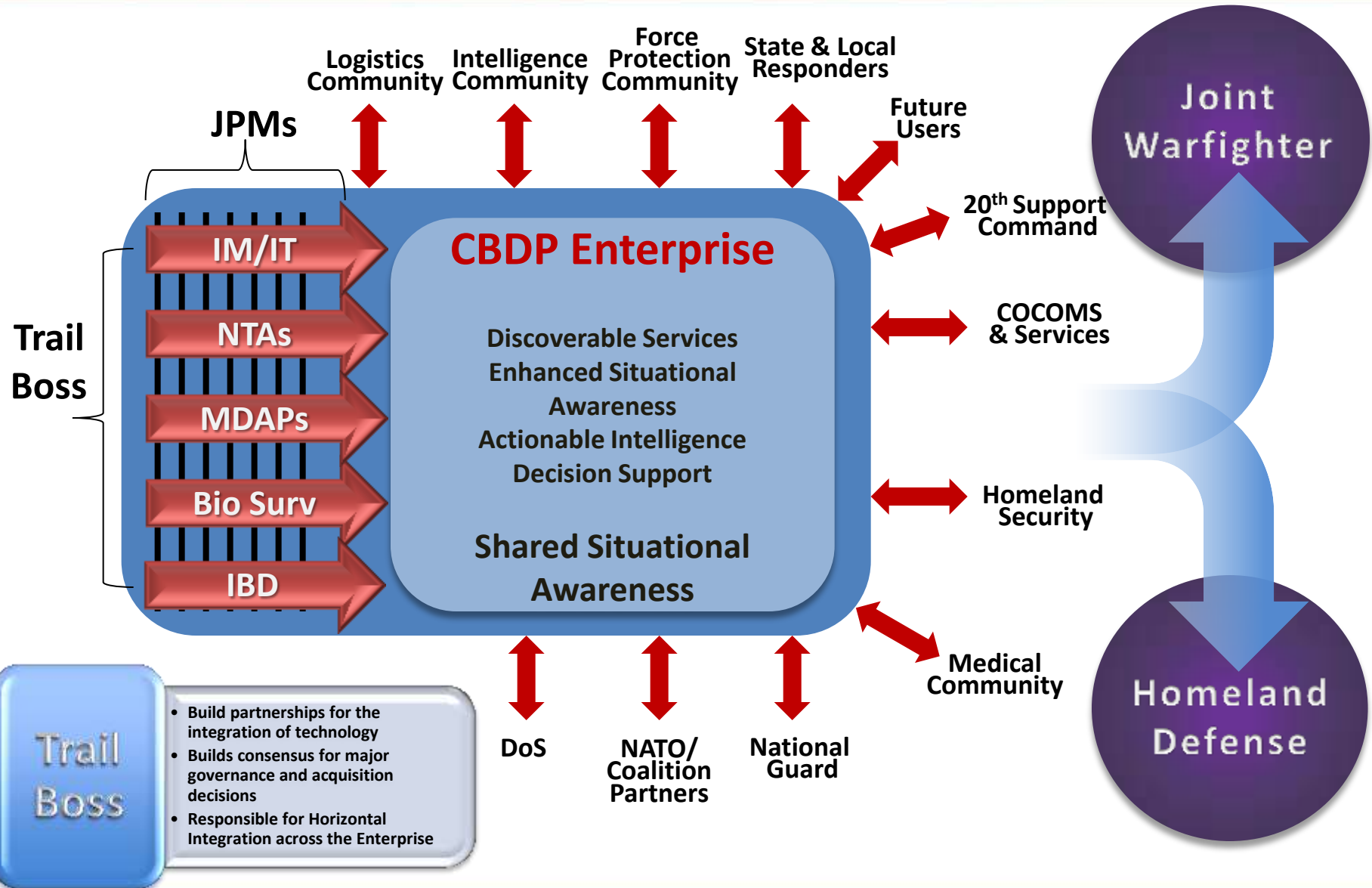


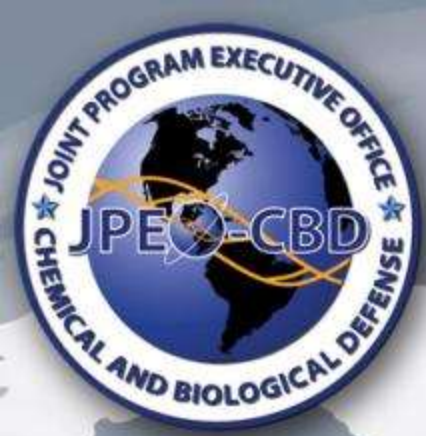
Trail Boss Functions Overview



Trail Boss

CBDP Enterprise Management

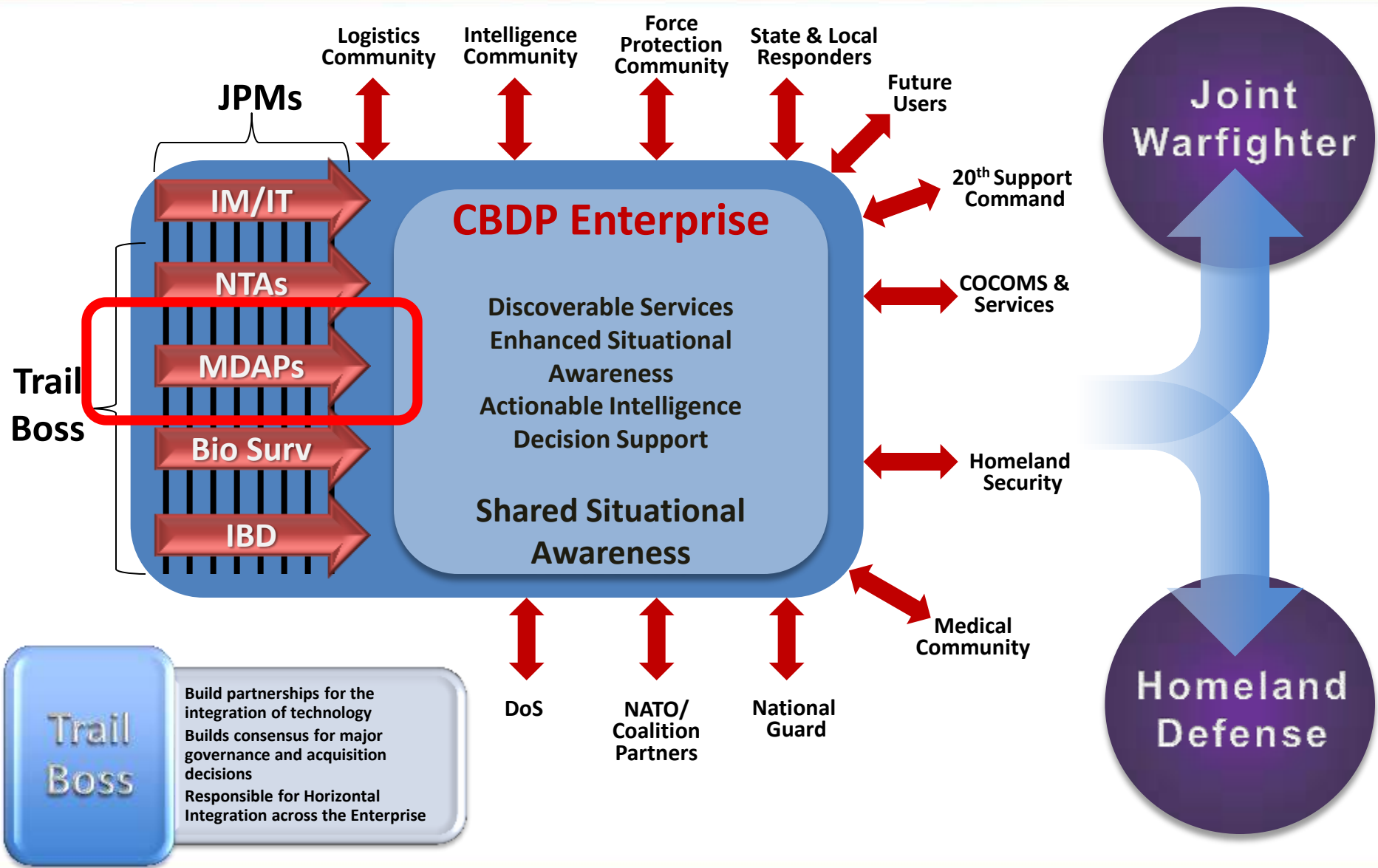




MDAP Formation & Support

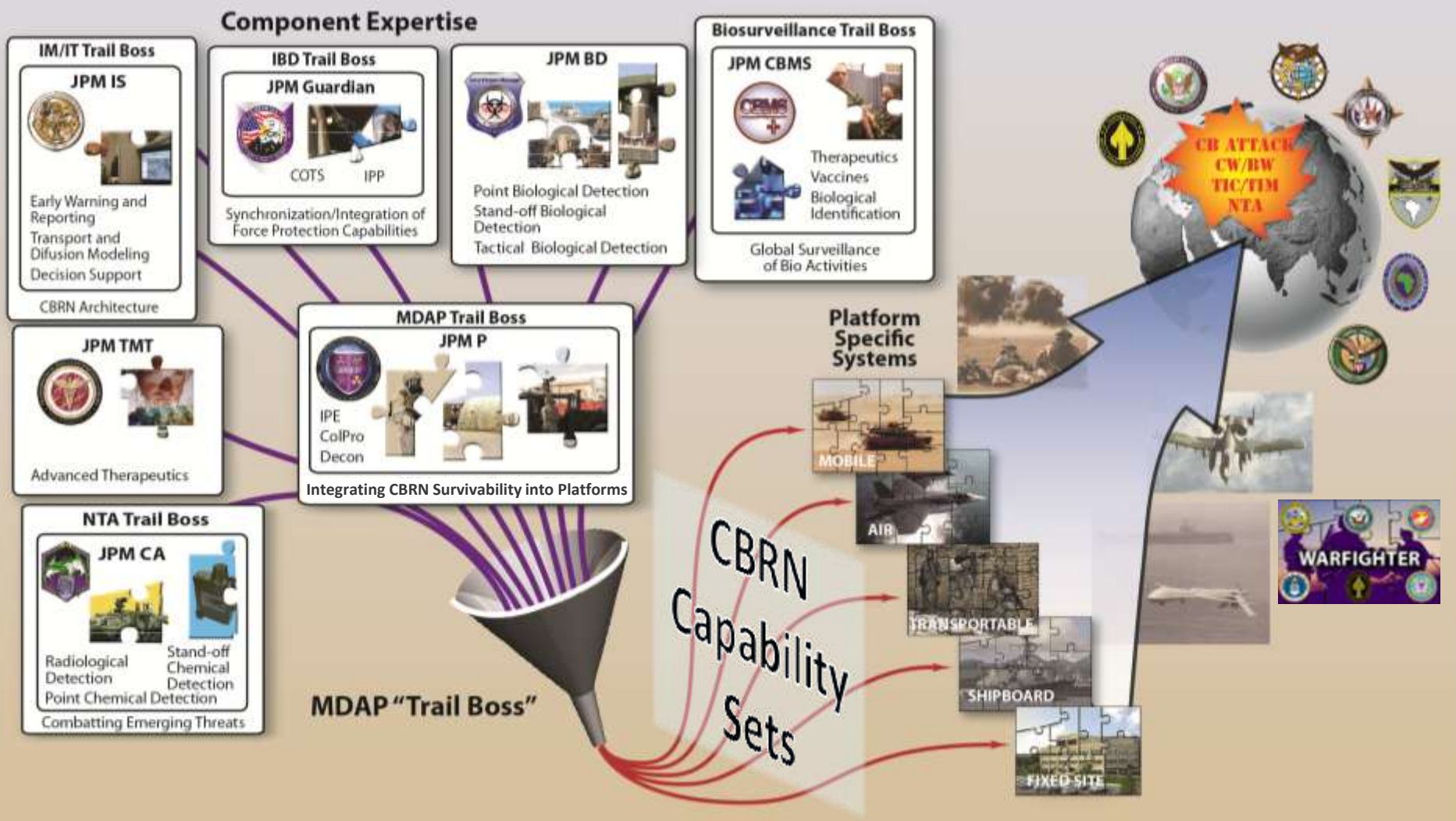


The Trail Boss Concept





MDAP Trail Boss Concept

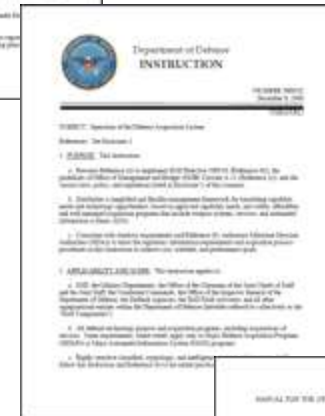


Maximize DoD Return on Investment by Leveraging JPEO-CBD Expertise and Product Portfolio to Provide Programs with CBRN Survivability Capabilities



CBRN Survivability Policy

- **DODI 3150.09**
 - **AT&L Policy Directive for CBRN Survivability for mission-critical systems**
- **DODI 5000.02**
 - **AT&L Affirms PM's need to address CBRN Survivability**
- **JCIDS Manual**
 - **Validates CBRN Survivability as a user requirement**





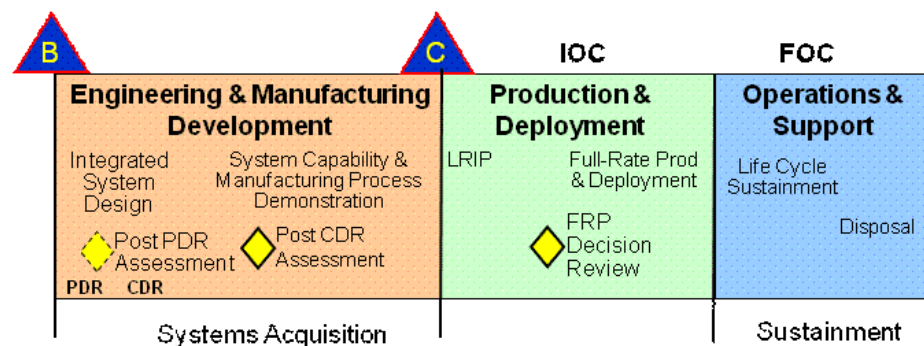
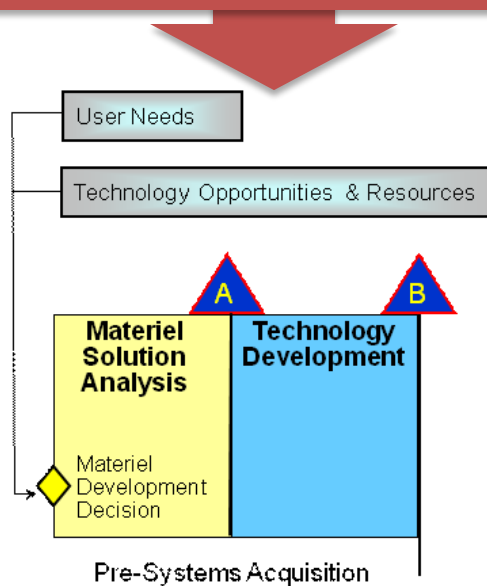
Putting Theory Into Practice

Best to Engage MDAP Trail Boss Prior to CDD

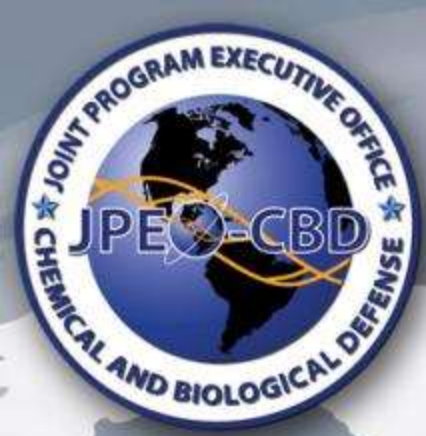
- Ensures effective engagement
- Allows optimization of Survivability requirements prior to EMD

MDAP Trail Boss can Still Help, if Engaged After CDD

- Managing expectations
- Affecting necessary design changes to meet Survivability requirements
- Providing SME support



Help Us to Help You – Engage Early if Possible



Closing: Future Missions



Advanced Threat Defense

- **Current Effort**

- The Advanced Threat (AT) Box augments the fielded JNBCRS Increment 2 system to provide necessary NTA defense capability for dismounted reconnaissance missions
- First of four Rapid Fieldings occurred on 24 JAN 2011 (181 CHEM CO, Ft Hood)
- Second fielding to 101st CHEM CO, Ft Bragg – Scheduled for completion on 26 MAY 2011
- Last two fieldings possibly delayed by CRA
 - 3rd Fielding: 63rd CHEM CO at Ft Campbell
 - 4th Fielding: 172nd CHEM CO at Ft Riley

- **Future Effort**

- Mission Based System Engineering (SE) capability analysis for identification of strategic drivers to influence follow-on improvements and/or PORs
- Augment CSTs with optimized NTA equipment set
- Acquisition strategy to guide development of capability designed to defeat next advanced threats



Chemical Threats

Traditional Threats

- Chemical warfare agents (nerve, blood, and blister)
- Agents designed for military operations/applications
- Toxic industrial materials (TIMs) hazards/Toxic Industrial Chemicals (TICs)



Advanced Threats

- Non-traditional Agents (NTA)
- Asymmetric applications and/or engagements





Biological Threats

Traditional Threats

- Bacterial pathogens:
 - Anthrax
 - Multi-drug Resistant Anthrax
 - Plague
 - Tularemia
- Viral pathogens:
 - Smallpox
 - Ebola
 - Marburg
- Toxins:
 - Botulism
 - Ricin
 - SEB

Enhanced Threats

- “Bioprospecting” to find particularly virulent strains in nature
- Cultivating particularly virulent strains of pathogens in the laboratory

Emerging Threats

- Current and emerging diseases:
 - Venezuelan Equine Encephalitis
 - Glanders
 - Melioidosis
 - Brucellosis
 - Cholera
 - Pandemic flu
 - SARS
 - Drug-resistant TB
 - Malaria



Advanced Threats

- Adding, deleting or mutating genes to engineer pathogens that are more resistant, transmissible and virulent
- Creating viruses de novo



JPEO-CBD Radiological/Nuclear (RN) Status and Path Forward

- **Issue: No identified DoD RN advanced developer for existing validated requirements**
- **Solution: Consolidation of RN advanced development mission under JPEO-CBD (Re-designation to JPEO-CBRND)**
 - **Fosters Integrated CWMD integrated solutions (prevention, protection, response)**
 - **Leverages efficiencies from established JPEO-CBD organizational and acquisition processes**
 - **Utilizes existing CBDP life-cycle acquisition structure**
 - **Continues synergy of existing CBRN Elements**
 - **JRO-CBRN (requirements)**
 - **DTRA (technology development)**
- **Path Forward:**
 - **JPEO-CBRND name change and mission codified by the ongoing change in DoDD 5160.05**
 - **Establish separate defense wide funding for RN programs**
 - **POM UFR submission for FY13-17 for programs supporting Countering Nuclear Threats, National Technical Nuclear Forensics and Medical Radiological mission areas.**
 - **Army RN Mission Area:**
 - **Transition JCTD successes (such as STIRS) into Joint programs**
 - **DoD RN Mission Area:**
 - **Continue to engage Services and COCOMs for support on RN requirements, priority and funding**
 - **Work with STRATCOM and JRO to transform Services' capability gaps into Joint requirements**
 - **Establish JPM-RN chartered to develop, procure, field and provide life-cycle sustainment support**

*The BEST Technology and Equipment
At the RIGHT PLACE
At the RIGHT TIME
At the RIGHT COST*

BG Jess A. Scarbrough

<http://www.jpeocbd.osd.mil>

JPEO-CBD

Joint Program Executive Office for
Chemical & Biological Defense
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Acronyms

JPM D – Joint Project Manager Decon

JPM CA – Joint Project Manager Contamination Avoidance

JPM CP – Joint Project Manager Collective Protection

JPM CBMS – Joint Project Manager Chemical Biological Medical Systems

JPM GN – Joint Project Manager Guardian

JPM IP – Joint Project Manager Individual Protection

JPM IS – Joint Project Manager Information Systems

ACADA/M22 - Automatic Chemical Agent Alarm

AFS - Alternative Footwear System

AIE - Automated Installation Entry

ALS 1 - Analytical Laboratory System

BAIS - Battlefield Anti-Intrusion System

FP SUITE – Force Protection Suite

ICAM - Improved Chemical Agent Monitor

ICIDS III - Integrated Commercial Intrusion Detection System

IFS - Integrated Footwear System

IPP - Installation Protection Program

JB2GU nFR - JSLIST Block 2 Glove Upgrade non Flame-Resistant

JBAIDS - Joint Biological Agent Identification and Diagnostic System

JBPDS - Joint Biological Standoff Detection System

JCAD - Joint Chemical Agent Detector

JCBRAWM - Joint Chemical Biological Radiological Water Monitor

JEM Incr 1 - Joint Effects Model Increment 1

JNBCRS-2 - Joint NBC Reconnaissance System Increment II

JPACE - Joint Protective Aircrew Ensemble

JSGPM - Joint Service General Purpose Mask

JSMLT - Joint Service Mask Leakage Tester

JSPDS (RSDL) - Joint Service Personnel/Skin Decontamination System (Reactive Skin Decontamination Lotion)

JSPDS Training Lotion - Joint Service Personnel/Skin Decontamination System

JSTDS-SS - Joint Service Transportable Decontamination System Small Scale

M31E2 BIDS - Biological Integrated Detection System

NIIS – Non Intrusive Inspection System

XM98 JBPDS - Joint Biological Point Detection System



Acronyms

20th Supt Cmd (CMEL) – 20th Support Command

(CARA Mobile Expeditionary Laboratories)

AAS – Advanced Anticonvulsant System

AIE – Automated Installation Entry

AIE II – Automated Installation Entry Increment 2

AVA – Anthrax Vaccine Adsorbed

BAIS – Battlefield Anti-Intrusion System

Bioscavenger Inc. 2 – Bioscavenger Increment 2

CALS – Common Analytical Laboratory System

CARA – CBRNE Analytical Remediation Agency

CBPS – Chemical Biological Protective Shelter

CBRNE – Chemical, Biological, Radiological, Nuclear, and Explosives

CM/HD – Consequence Management/Homeland Defense

COTS-LCMP (CSPA) – Commercial Off-the-Shelf - Life Cycle Management Program (Chemical and Biological Defense Small Project Acquisition)

CPFH – Collectively Protected Field Hospitals

CPSBKFT – Collective Protection Systems Backfit

DFoS – Decontamination Family of Systems

DRSKO – Dismounted Reconnaissance Sets, Kits, and Outfits



Acronyms

FOTOD – Family of Tactical Obscuration Devices

HFV MCM – Hemorrhagic Fever Virus Medical Countermeasures

HRDS – Human Remains Decontamination System

ICIDS – Integrated Commercial Intrusion Detection System

INATS – Improved Nerve Agent Treatment System

IPAT – Integrated Program Assistance Team

IPP – Installation Protection Program

JBAIDS – Joint Biological Agent Identification and Diagnostic System

JBPDS – Joint Biological Point Detection System

JBSDS – Joint Biological Standoff Detection System

JBTDS – Joint Biological Tactical Detection System

JCAD M4E1 – Joint Chemical Agent Detector M4E1

JCBRAWM – Joint Chemical, Biological, Radiological Agent Water Monitor

JC3 – Joint Chemical and Biological Coverall for Combat Vehicle Crewman

JECP – Joint Expeditionary Collective Protection

JEM – Joint Effects Model

JLCMR – Joint Life Cycle Management Review

JMDS – Joint Material Decontamination System

JSAM APACHE – Joint Service Aircrew Mask, Apache Variant



Acronyms

JSAM FW – Joint Service Aircrew Mask Fixed Wing Variant

JSAM RW – Joint Service Aircrew Mask Rotary Wing Variant

JSGPM – Joint Service General Purpose Mask

JSLIST – Joint Service Lightweight Integrated Suit Technology

JSLSCAD – Joint Service Lightweight Standoff Chemical Agent Detector

JSTDS-SS – Joint Service Transportable Decontamination System- Small Scale

JWARN – Joint Warning and Reporting Network

LKMD – Lighting Kit, Motion Detector

MDAP – Major Defense Acquisition Programs

MDARS – Mobile Detection Assessment Response System

MRADC – Medical Radiation Countermeasure

PDTES – Product Director Test Equipment, Strategy and Support

rBV A/B Vaccine – Recombinant Botulinum A/B Vaccine

SOD-VR – Screening and Obscuration Device, Visual, Restricted Terrain

SSA – Software Support Activity

Stryker NBCRV – Stryker Nuclear, Biological, Chemical Reconnaissance Vehicle

UCS – Unified Command Suit